Downstream
Alternatives Inc.

TO: Maria Tome

FROM: Robert E. Reynolds

DATE: June 3, 2004

SUBJECT: Underground Tank Information

Maria,

Attached are copies of the various information I have on file on underground storage tanks (and piping). These items include the following:

1. Owens Corning letter of April 14, 1995 showing tanks since January 1981 are OK for 10% ethanol. Note that Owens Corning is the predecessor company of Fluid Containment.

2. Copy of Owens Corning warranty statement - 10% ethanol permitted.

3. Copy of Fluid Containment warranty statement - 10% ethanol permitted.

4. Xerxes warranty statement - 10% ethanol permitted.

5. 1995 white paper from Fiberglass Tank and Pipe Institute indicating tanks and piping are, and have been, compatible with fiberglass composites used.

6. Warranty statement for Plasteel Tanks that permits the use of ethanol. This is a steel tank with plastic exterior coating.

I think the attachments should answer any concerns about underground storage tanks. I apologize for the poor quality of the copies, but this issue was resolved so long ago, there was never a need to secure updated copies.

Bob Reynolds

2259 Harwood St. · South Bend, IN 46614 · 574-250-2811 · Fax 574-231-8975 · rreynolds-dai@earthlink.net

OWENS-CORNING WORLD HEADQUARTERS
FIBERGLAS TOWER
TOLEDO, OHIO 43659
419 248.8000

April 14, 1995

To Owens-Corning Tank Customers:

The purpose of this letter is to clarify the use of fiberglass underground storage tanks produced by Owens-Corning for the storage of ether and alcohol fuel blends. All percentages are by volume.

FUELS BLENDED WITH ETHER:

Owens-Corning has extensively tested fuels containing up to 20% MTBE, ETBE, and TAME. The results show very little effect on the laminate, and hence storage of these ether blends in underground storage tanks produced by Owens-Corning from 1964 through 1994 would not void the manufacturer's warranty.

ALCOHOL FUELS:

TANKS MADE PRIOR TO JANUARY 1981:

Tanks produced prior to January 1981 were not warranted for any alcohol or alcohol blend fuels. In addition, these tanks were not tested and listed by Underwriter's Laboratory (UL) for such fuels. The use of alcohol or alcohol blends in tanks produced and sold prior to January 1981 would void both the manufacturer's warranty and the UL listing for the tank.

TANKS MADE BETWEEN JANUARY 1981 AND JUNE 1984:

In December 1981, Owens-Corning completed UL testing and introduced a 30-year warranty on the standard fiberglass tank for 10% ethanol blended fuel. For these tanks, the use of ethanol blends over 10% or any methanol blends in the standard fiberglass tank would void both the manufacturer's warranty and the UL listing for the tank.

For methanol blends or blends of ethanol exceeding 10%, an optional vinylester resin system was UL listed and available as an option from Owens-Corning.

TANKS MADE BETWEEN JULY 1984 AND JUNE 1990:

In July 1984, Owens-Corning completed additional UL testing and introduced a 30-year warranty on the standard fiberglass tank for low levels of methanol such as 90.5% gasoline and 9.5% Oxinol-50 (4.75/4.75 methanol/GTBA). For these tanks, the use of ethanol blends over 10% and methanol blends over 4.75% would void the manufacturer's warranty and the UL listing for the tank.

TANKS MADE SINCE 1990:
In July of 1990, Owens-Corning issued a 30-year warranty for all levels of alcohol (ethanol or methanol) on standard double wall tanks. These tanks were UL listed for this service.

It is our belief that the prudent tank owner will want to secondarily contain any high level alcohol blends (over 10%), as higher levels could be considered hazardous material as defined in the underground tank regulations published by the federal Environmental Protection Agency. It is our recommendation that double wall fiberglass tanks be used to achieve that secondary containment.

The above should clarify the issue of fuel compatibility warranty coverage and UL listings for ether and alcohol blended fuels stored in tanks manufactured by Owens-Corning between 1964 and December 31, 1994.

Sincerely,

Original signed by David Bartlow

David Bartlow
Manager, Tanks
Owens-Corning Fiberglas Corporation

XERXES®
CORPORATION

February 26, 1998

Robert E. Reynolds
President
Downstream Alternatives, Inc.
P. O. Box 190
Bremen, IN 46506-0190

Dear Mr. Reynolds:

In regard to your letter of February 10, I have enclosed three items for your information:

Xerxes single-wall warranty
Xerxes double-wall warranty
A "white paper" prepared by the Fiberglass Tank and Pipe Institute on reformulated gasolines.

I believe that these items will respond to the questions in your letter on compatibility of MTBE and fiberglass tanks.

Thank you for your attention.

Very truly yours,

Terry Jensen
Manager, Sales Services

TJ/bbs

Enclosures

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LIMITED WARRANTY
Single Wall Underground Petroleum Storage Tank

Xerxes Corporation ("Xerxes") warrants to ("Owner") that our underground storage tanks, if used in accordance with Xerxes' published specifications and operating guidelines, and if installed, operated and maintained in the United States according to Xerxes' published installation instructions and all applicable laws and regulations:

1) Will not fail for a period of thirty (30) years from date of original delivery by Xerxes due to natural external corrosion.

2) Will not fail for a period of thirty (30) years from date of original delivery by Xerxes due to internal corrosion, provided the tank is used solely, with or without tank water bottoms, for the following products:

   a. Gasoline, jet fuel, aviation gasolines, motor oils, motor vehicle waste oils, kerosene, diesel fuels, or fuel oils at temperatures not to exceed 150°F.
   b. Alcohol-gasoline blends, and oxygenated motor fuels stored at ambient temperature:
      1. Ethanol Blends
         - Gasohol (90% gasoline and 10% ethyl alcohol).
      2. Methanol Blends
         - Oxinol-50[1] waiver (90.5% gasoline and 9.5% Oxinol-50[1] comprised of a 4.75% methanol and 4.75% GTBA mixture)
         - Dupont EPA waiver (gasoline with 5% methanol and a minimum of 2.5% cosolvent - the blend may contain a maximum concentration of up to 3.7%, by weight, oxygen in the final fuel).
      3. Other Oxygenated Fuels
         - Gasoline with up to 20%, by volume, of methyl tertiary butyl ether (MTBE), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), or tertiary amyl ethyl ether (TAEE).

3) Will not fail for a period of thirty (30) years from date of original delivery by Xerxes due to structural failure, (defined as spontaneous breaking or collapse caused by material defects in materials or workmanship). Any post installation repairs or tank alterations must be performed by Xerxes or its authorized contractor.

4) Will meet Xerxes' published specifications and will be free from material defects in materials and workmanship for a period of one (1) year following date of original delivery by Xerxes.

If any tank is to be removed from an installation, moved to Owner's new location and is intended for active service at the new location, the tank must be recertified by Xerxes in order to maintain the warranty as originally extended. The foregoing warranty does not extend to tanks damaged due to acts of God or tank failures caused, in whole or in part, by misuse, improper installation, storage, servicing, maintenance, or operation in excess of their rated capacity or contrary to their recommended use, whether intentional or otherwise, or any other cause or damage of any kind not the fault of Xerxes. Xerxes does not warrant any product, components or parts manufactured by others.

Owner's sole and exclusive remedy for breach of warranty is limited at Xerxes' option to: (a) repair of the defective tank, (b) delivery of a replacement tank to the point of original delivery, or (c) refund of the original purchase price. A claimant must give Xerxes the opportunity to observe and inspect the tank prior to removal from the ground or the claim will be barred. All claims must be made in writing within one (1) year after tank failure or be forever barred. THE FOREGOING WARRANTY CONSTITUTES XERXES' EXCLUSIVE OBLIGATION AND XERXES MAKES NO OTHER WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, WITH RESPECT TO THE TANK OR ANY SERVICE, ADVICE, OR CONSULTATION, IF ANY, FURNISHED TO OWNER BY XERXES OR ITS REPRESENTATIVES, WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. THE REMEDIES SET FORTH IN THE ABOVE WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON OR ENTITY FOR BREACH OF WARRANTY OR FOR BREACH OF ANY OTHER COVENANT, DUTY, OR OBLIGATION ON THE PART OF XERXES. XERXES SHALL HAVE NO LIABILITY OR OBLIGATION TO ANY PERSON OR ENTITY FOR BREACH OF ANY OTHER COVENANT, DUTY OR OBLIGATION UNDER THIS WARRANTY EXCEPT AS EXPRESSLY SET FORTH HEREIN. IT IS EXPRESSLY AGREED THAT THIS WARRANTY DOES NOT FAIL OF ITS ESSENTIAL PURPOSE. XERXES SHALL HAVE NO LIABILITY FOR TANK INSTALLATION OR REMOVAL COSTS, ENVIRONMENTAL CONTAMINATION, FIRES, EXPLOSIONS OR ANY OTHER CONSEQUENCES ALLEGEDLY ATTRIBUTABLE TO A BREACH OF WARRANTY, OR INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY DESCRIPTION, WHETHER ANY SUCH CLAIM OR DAMAGES BE BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER TORT, OR OTHERWISE. IN NO EVENT SHALL XERXES' TOTAL LIABILITY HEREUNDER EXCEED THE ORIGINAL PURCHASE PRICE OF THE TANK WHICH GAVE RISE TO SUCH LIABILITY.

Effective 1/15/98

[1]TM Arco Chemical Co.

LIMITED WARRANTY
Petroleum or Alcohol Fuels Storage
for Double Wall Underground Petroleum Storage Tanks
with Resin Specified for Expanded Fuels

Xerxes Corporation ("Xerxes") warrants to ("Owner") that our underground storage tanks, if used in accordance with Xerxes' published specifications and operating guidelines, and if installed, operated and maintained in the United States according to Xerxes' published installation instructions and all applicable laws and regulations:

1) Will not fail for a period of thirty (30) years from date of original delivery by Xerxes due to natural external corrosion.
2) Will not fail for a period of thirty (30) years from date of original delivery by Xerxes due to internal corrosion, provided the tank is used solely, with or without tank water bottoms, to store the following products:
   a. Gasoline, jet fuel, aviation gasolines, motor oils, motor vehicle waste oils, kerosene, diesel fuels, or fuel oils at temperatures not to exceed 150°F.
   b. Alcohol, alcohol-gasoline blend, and oxygenated motor fuels stored at ambient temperature:
      1. Ethanol and Ethanol Blends
         - 100% Ethyl Alcohol
         - Gasohol (90% gasoline and 10% ethyl alcohol);
      2. Methanol and Methanol Blends
         - 100% Methyl Alcohol
         - M85 (85% Methanol and 15% gasoline)
         - Oxinol-50[1] waiver (90.5% gasoline and 9.5% Oxinol-50[1] comprised of a 4.75% methanol and 4.75% GTBA mixture).
         - Dupont EPA waiver (gasoline with 5% methanol and a minimum of 2.5% cosolvent - the blend may contain a maximum concentration of up to 3.7 weight percent oxygen in the final fuel)
      3. Other Oxygenated Fuels
         - Gasoline with up to 20%, by volume, of methyl tertiary butyl ether (MTBE), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), or tertiary amyl ethyl ether (TAEE).
3) Will not fail for a period of thirty (30) years from date of original delivery by Xerxes due to structural failure, (defined as spontaneous breaking or collapse caused by material defects in materials or workmanship). Any post installation repairs or tank alterations must be performed by Xerxes or its authorized contractor.
4) Will meet Xerxes' published specifications and will be free from material defects in materials and workmanship for a period of one (1) year following the date of original delivery by Xerxes.

If any tank is to be removed from an installation, moved to Owner's new location and is intended for active service at the new location, the tank must be recertified by Xerxes in order to maintain the warranty as originally extended. The foregoing warranty does not extend to tanks damaged due to acts of God or tank failures caused, in whole or in part, by misuse, improper installation, storage, servicing, maintenance, or operation in excess of their rated capacity or contrary to their recommended use, whether intentional or otherwise, or any other cause or damage of any kind not the fault of Xerxes. Xerxes does not warrant any product, components or parts manufactured by others.

Owner's sole and exclusive remedy for breach of warranty is limited at Xerxes' option to: (a) repair of the defective tank, (b) delivery of a replacement tank to the point of original delivery, or (c) refund of the original purchase price. A claimant must give Xerxes the opportunity to observe and inspect the tank prior to removal from the ground or the claim will be barred. All claims must be made in writing within one (1) year after tank failure or be forever barred. THE FOREGOING WARRANTY CONSTITUTES XERXES' EXCLUSIVE OBLIGATION AND XERXES MAKES NO OTHER WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, WITH RESPECT TO THE TANK OR ANY SERVICE, ADVICE, OR CONSULTATION, IF ANY, FURNISHED TO OWNER BY XERXES OR ITS REPRESENTATIVES, WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. THE REMEDIES SET FORTH IN THE ABOVE WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON OR ENTITY FOR BREACH OF WARRANTY OR FOR BREACH OF ANY OTHER COVENANT, DUTY, OR OBLIGATION ON THE PART OF XERXES. XERXES SHALL HAVE NO LIABILITY OR OBLIGATION TO ANY PERSON OR ENTITY FOR BREACH OF ANY OTHER COVENANT, DUTY OR OBLIGATION UNDER THIS WARRANTY EXCEPT AS EXPRESSLY SET FORTH HEREIN. IT IS EXPRESSLY AGREED THAT THIS WARRANTY DOES NOT FAIL OF ITS ESSENTIAL PURPOSE. XERXES SHALL HAVE NO LIABILITY FOR TANK INSTALLATION OR REMOVAL COSTS, ENVIRONMENTAL CONTAMINATION, FIRES, EXPLOSIONS OR ANY OTHER CONSEQUENCES ALLEGEDLY ATTRIBUTABLE TO A BREACH OF WARRANTY, OR INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY DESCRIPTION, WHETHER ANY SUCH CLAIM OR DAMAGES BE BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER TORT, OR OTHERWISE. IN NO EVENT SHALL XERXES' TOTAL LIABILITY HEREUNDER EXCEED THE ORIGINAL PURCHASE PRICE OF THE TANK WHICH GAVE RISE TO SUCH LIABILITY.

[1]TM Arco Chemical Co.

Effective 1/15/98

Fiberglass Petroleum Tank & Pipe Institute
RFG and fiberglass – Final (3/21/95)

RFG in FRP -- Fueling the Future

This paper was written by Sullivan D. Curran, Executive Director of the Fiberglass Petroleum Tank & Pipe Institute. The paper discusses the compatibility of gasoline, gasoline-alcohol blends and 100% alcohol with Fiberglass Reinforced Plastic ("FRP") storage tanks and piping systems manufactured by Cardinal Fibreglass Industries, Fluid Containment, Inc., Xerxes Corporation, Ameron, Fiberglass Pipe Group and Smith Fiberglass Products Inc. The paper does not address other FRP manufacturers or FRP products manufactured by others.

Reformulated gasoline ("RFG") has generated almost as much media attention about gasoline as the oil embargoes of the 1970s. Expected higher pump prices, possible shortages in some areas, logistics problems, concerns about additives and future changes to the formulation of RFG have made headlines. Now it's time to address the question of whether the current tanks, pipes and dispensing units in use at service stations all over the U.S. are adequate for the new fuel.

While debate continues among advocates of various alternative fuels, one constant remains: fiberglass tanks and pipe installations continue to provide a cost-effective and environmentally secure means to store RFG. However, storage is just one phase of the complete fuel refining and delivery system.

Why RFG, and why now?

Beginning January 1, 1995, the Clean Air Act required RFG in the eight areas of the country with the worst ozone pollution. States are permitted under the Act to "opt-in" additional ozone nonattainment areas into the RFG program, and 13 states have done so. As a result, RFG is expected to account for about 30 percent of the gasoline sold in the U.S.
Conventional gasolines ("CG") sold after December 31, 1994, must also contain additives approved by the EPA.

The EPA recently ruled that a portion of the oxygen content of RFG - 15 percent in 1995 and 30 percent thereafter - must be comprised of renewable oxygenates, such as ethanol.

Methyl Teritary Butyl Ether ("MTBE"), Ethyl Teritrary Butyl Ether ("ETBE"), Tertiary Amly Methyl Ether ("TAME") are not renewable oxygenates. As issued, the renewable oxygenates rule would significantly increase the amount of ethanol blended with gasoline, but not above the current maximum blend rates of 10 percent by volume.

The American Petroleum Institute ("API") and the National Petroleum Refiners Association filed suit to halt implementation of the renewable oxygenates rule, and a federal court issued a stay which prohibits EPA from enforcing the rule. Arguments on the suit are expected to take place during 1995.

If the renewable oxygenates rule is upheld by the court, refiners will have to move ethanol blending stocks to the terminals in separate shipments from conventional and reformulated gasoline. Because of its affinity for water, ethanol cannot be moved through the existing pipeline systems, but must be shipped on barges, in trucks or by rail. Complete pipeline dehydration would be required for multiple shipper-multiple product systems to avoid dissolved water contamination of other products such as aviation turbine fuels.

What is the Typical Composition of RFG

An average gallon of RFG, between 1995 and 1997, will have the following characteristics:

		Southern Areas	Northern Areas
RVP	(psi)	7.2 Max. Summer	8.1 Max. Summer
Oxygen	(%wt)	2.1 Min.	same
	(vol%)	5.8% Min. 10% Max.	same
Benzene	(vol%)	1.0 Max	same
Toxic	(% reduction)	15.0	same

Concern about the effects of the alcohol-based fuels on equipment rubber and other elastomer components extends beyond the service station to refinery equipment, pipelines, pumping stations, terminals, trucks and marine vessels carrying the fuels.

Valves and pump seals made of elastomers comprise many facets of fuel storage and delivery systems.

Whether these components, tank linings and membranes (e. g., tank jackets) will be able to stand up to the higher corrosive nature of the future fuels has yet to be experienced.

The API Recommended Practice 1626, "Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations," addresses some of these issues.

API states that most materials used for storing, blending and transporting gasoline are also suitable for use with ethanol and ethanol blends. "However, engineering judgment is required when selecting materials for use with ethanol and ethanol blends to ensure the safety of facilities that handle these liquids," the document states.

API recommends inspecting the system and making modifications as needed, and checking all materials within the system for suitability for use with the ethanol fuels and replacing unsuitable materials as required.

Gasohols and FRP

Fiberglass reinforced plastic tanks and piping have been tested for fuel compatibility since before 1965, and testing has continued to meet the dynamics of the changing composition of fuels for these past 30 years. For underground storage tank and piping systems manufactured since gasohol came into the market, manufacturers have recommended the use of fiberglass tanks and piping for the maximum legal alcohol blend limits, i.e. 10 percent ethanol, 5 percent methanol or 15 percent MTBE.

Since 1978, waivers from ethanol or methanol legal blend limits have been requested by fuel and additive manufacturers in petitions to the EPA, i. e. under Section 211(f) of the Clean Air Act. However, to date the EPA has not granted waivers that would exceed the maximum alcohol blend limits. Further, to date EPA has not granted a waiver for any blend of a listed hazardous substance, such as methanol, to be stored or handled as a "gasoline." As a result, methanol blends above 5% must be stored in secondarily contained (e. g., DW or Double Wall) tanks and piping.

In 1983, Underwriters Laboratories, Inc. ("UL") updated their material compatibility testing protocol to recognize gasohol fuels in the marketplace. In addition, certain manufacturers of DW fiberglass tanks, primary piping and containment systems UL List products for alcohol-based fuels and 100 percent ethanol or methanol. No comparable standard exists for steel or lined steel tanks or piping.

MTBE and FRP

While alcohols and alcohol blends have been used as fuels in the marketplace since the late 1970s, RFG is a new motor fuel beginning with its introduction on January 1, 1995. As shown prevoiusly, the legal limit for its major additive, MTBE is 15 percent. However, MTBE is not a new gasoline additive. Under EPA rules concerning allowable limits for oxygenates in unleaded gasoline, large gasoline refiners were granted MTBE waivers as early as 1979. Since that time and well before the introduction of RFG, MTBE has been stored and dispensed at the 15 percent levels in FRP tanks and piping throughout the United States.

The introduction of MTBE, ETBE and TAME has not been of concern to FRP tanks and piping systems manufacturers who recommend their products for the legal limits of alcohol blends. Alcohols are hydrocarbon compounds that contain smaller hydrocarbon molecules than those found in MTBE, ETBE or TAME. As a result, ether based gasoline additives are held to be less aggressive than their alcohol counterparts...thus, they will be readily contained.

RFG at the Service Station

Putting politics aside, consider the reality of RFG. The storage tank and piping systems are just one component of the fuel dispensing system at a service station. Each storage tank may have its own pumping unit and system of pipes leading to dispensing units on the service islands. These dispensers may have their own pumping unit and have meters, hoses and nozzles. These systems are often equipped with a vapor recovery system to prevent gasoline fumes from escaping into the atmosphere.

As the fuel compositions change to include more methanol, ethanol or other oxygenates, how will critical fuel delivery systems be affected, and which parts of the system are most sensitive?

Current retail dispensing equipment is designed to handle a maximum gasohol blend of 10 percent ethanol or 5 percent methanol. (By the way, automobile manufacturers generally state that their products are capable of handling up to 10 percent ethanol blends.)

Fuel system components must not craze, leak, or become permeable to fuel. They must retain flexibility, strength, and optimum hardness to provide required sealing. Service station operators should begin routine checks of the fuel delivery system and be alert to wear or corrosion in the following areas:

- Packing and seals on the pumps and meters
- Hoses, O-rings and other sensitive components in the nozzles

Filters may need to be installed in the final dispensing system to ensure delivery of clean product. Meters may need to be replaced or recalibrated.

API recommends consideration of the following dispensing system components when converting a retail service station to handle gasoline-alcohol blends:

- Meter replacement or recalibration
- Pumps and line leak detectors
- Dispensers and filters
- Alcohol-resistant materials -- hoses, seals, nozzles
- Protection from water contamination -- dryers on vent lines and pressure vacuum vents, fill cap O-rings
- Storage tank cleaning and drying
- Storage tank and piping compatibility
- Application of special signs and decals

Conclusion

The increased oxygen content of RFG, and the possibility that even more oxygenates may be added to fuel in the future, require diligent efforts to ensure the safety of all components of existing fuel distribution systems. Thorough inspections should be conducted on a regular basis, manufacturers should be consulted as to the suitability of their products to handle the new fuels, and care must be taken to comply with known safety measures to protect equipment and distribution systems.

Owners and operators must also recognize the need to upgrade older systems to ensure the safe handling of oxygenated fuels.

As fuel compositions have changed over the years, fiberglass tank and piping manufacturers have continued testing their products to ensure compatibility with the new fuels. Rigorous compatibility testing and UL standards provide a high level of confidence that fiberglass reinforced plastic systems will continue to be the preferred underground fuel storage and handling method despite changes in fuel composition.

Fluid Containment Warranty and Installation Information for Standard Double-Wall Tanks.

WARRANTY

Double-Wall Underground Tank For Alcohol or Petroleum Storage

We warrant that our alcohol compatible double-wall underground tanks and secondary containment collars if installed underground with proper backfill and otherwise installed in accordance with our instructions:

I. Will meet our published specifications and will be free from material defects in materials and workmanship for a period of one (1) year following date of original delivery by us;

II. Will not leak for a period of thirty (30) years from date of original delivery due to external corrosion; and

III. Will not leak for a period of thirty (30) years from date of original delivery due to internal corrosion provided the tank is used solely with or without tank water bottoms for the following products:

A. Petroleum products including gasoline, jet fuel, av-gas, motor oil (new and used), kerosene, diesel fuel or used for fuel oil at temperatures not to exceed 150°F.

B. Alcohol-gasoline blend motor fuels.
1. Ethanol blends
   - Gasohol (90% gasoline and 10% ethyl alcohol).
2. Methanol blends
   - Oxinol-50* waiver (90.5% gasoline and 9.5% Oxinol-50* composed of a mixture of 4.75% methanol and 4.75% GTBA).
   - DuPont EPA waiver (gasoline with 5% methanol and a minimum of 2.5% cosolvent. The blend may contain a maximum concentration of up to 3.7 weight percent oxygen in the final fuel).

C. Oxygenated motor fuels.
- Gasoline with up to 20% (by volume) of methyl tertiary butyl ether (MTBE).

D. Potable water at ambient temperatures.

E. Any gasoline/water/ethanol or methanol blend including 100% ethanol, methanol, or M85 (85% methanol) at ambient temperatures.

IV. Will not leak for a period of thirty (30) years from date of original delivery due to structural failure, which shall be defined as breaking or collapse, provided the installation is in the United States and is performed and validated by a contractor educated in proper tank installation procedures. The owner must retain a Fluid Containment installation checklist properly completed by the contractor and the owner's representative. The tank is used within the limitations stated above. If the tank is exhumed and moved, it must be inspected, repaired (as necessary), and recertified by Fluid Containment in order to continue the structural warranty for the balance of 30 years.

Our liability under this warranty shall be limited to, at our option, (i) repair of the defective tank, (ii) delivery of a replacement tank to the point of original delivery, or (iii) refund of the original purchase price, and we shall not be liable for any labor, other installation costs, indirect or consequential damages or other damages in connection with such tanks. THE FOREGOING CONSTITUTES OUR EXCLUSIVE OBLIGATION AND WE MAKE NO EXPRESS OR IMPLIED WARRANTIES, OR ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHATSOEVER, EXCEPT AS STATED ABOVE.

FLUID CONTAINMENT

* Reg. TM Arco Chemical Co.

Accessories Warranty

All double-wall tank accessories and monitoring equipment are warranted to be free from material defects in workmanship and materials for a period of one (1) year following date of original delivery by Fluid Containment.

Our liability under this warranty shall be limited to, at our option, (i) repair of the defective unit, (ii) delivery of a replacement unit to the point of original delivery, or (iii) refund of the original purchase price, and we shall not be liable for any labor, other installation costs, indirect or consequential damages or other damages in connection with such tanks. THE FOREGOING CONSTITUTES OUR EXCLUSIVE OBLIGATION AND WE MAKE NO EXPRESS OR IMPLIED WARRANTIES, OR ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHATSOEVER, EXCEPT AS STATED ABOVE.

Failure to install the tank accessories or monitoring equipment in accordance with the Fluid Containment installation instructions will void the warranty.

Fiberglass Tanks Intended Use

Fiberglass petroleum storage double-wall tanks are designed for the storage of gasoline, alcohol blended gasoline (with up to 100% methanol or ethanol), jet fuel, av-gas, motor oil, kerosene, diesel fuel, oxygenated fuels (up to 20% MTBE), or potable water at ambient underground temperatures. Fuel oil may be stored at temperatures not to exceed 150°F.

CAUTION: Tank owners storing #6 fuel oil are advised to confirm product temperatures. Typical delivery and recycled temperatures of #6 fuel oil exceed 150°F.

The storage of other liquids may result in tank failure. Before storing liquids other than those listed above, contact Tank Technical Support.

Installation Overview

Fiberglass underground tanks must be installed in accordance with the installation instructions (Fluid Containment Pub. No. 6304). This document should be part of your tank specifications. Some key installation steps are highlighted below. *See the published installation instructions for complete details.*

Double-wall tanks must be mechanically unloaded from the delivery truck using a backhoe or crane (using all lift lugs provided to lift the tank).

LIMITED WARRANTY

Petroleum or Alcohol Fuels Storage for Single Wall Underground Petroleum Tanks with Resin Specified for Expanded Fuels

Xerxes Corporation warrants that Xerxes underground storage tanks are U.L. listed and if used in accordance with Xerxes specifications and installed according to Xerxes published installation instructions and all applicable laws and regulations:

1) Will not fail for a period of thirty (30) years from date of original purchase due to external corrosion.

2) Will not fail for a period of thirty (30) years from date of original purchase due to internal corrosion, provided the tank is used solely with or without tank water bottoms for the following products:
   a. Gasoline; gasohol (90% gasoline/10% ethanol mixture); 90.5% gasoline and 9.5% Oxinol-50[1] (4.75% methanol and 4.75% GTBA mixture); Dupont EPA waiver (gasoline with 5% methanol and a minimum of 2.5% cosolvent — the blend may contain a maximum concentration of up to 3.7 weight percent oxygen in the final fuel); MTBE (methyl tertiary butyl ether) — gasoline with up to 20%, by volume, of MTBE; gasoline/water/ethanol or methanol blend motor fuels including 100% ethanol or methanol or M85 (85% methanol) at ambient temperatures; jet fuel; av-gas; kerosene; diesel fuel; new or used motor oil; or used for fuel oil at temperatures not to exceed 150° F.

3) Will not fail for a period of thirty (30) years from date of original purchase due to structural failure (defined as breaking or collapse) provided the installation is performed and validated by a qualified installation contractor, installed in the United States, and the tank is used as stated above.

4) Will meet Xerxes published specifications and will be free from material defects in materials and workmanship for a period of one (1) year following date of original delivery by Xerxes.

Methanol (methyl alcohol) has been designated as "hazardous" in Section 101 (14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Hazardous substances must be stored within secondary containment and have interstitial monitoring, according to federal law[2]. This warranty is null and void if a single wall tank has been purchased and installed for products containing a hazardous substance without use of secondary containment and interstitial monitoring as required.

If any tank(s) is to be removed from an installation, moved to original purchaser's new location and is intended for active service at a new location, the tank(s) must be recertified by Xerxes in order to maintain the warranty as originally extended.

Xerxes' liability under this warranty shall be limited to, at Xerxes' option, (a) repair of the defective tank, (b) delivery of a replacement tank to the point of original delivery, or (c) refund of the original purchase price. A claimant must give Xerxes the opportunity to observe and inspect the tank prior to removal from the ground or the claim will be barred. All claims must be made in writing within one year after tank failure or be forever barred. THE FOREGOING WARRANTY CONSTITUTES XERXES' EXCLUSIVE OBLIGATION AND XERXES MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, WITH RESPECT TO THE TANK OR ANY SERVICE, ADVICE, OR CONSULTATION, IF ANY, FURNISHED TO CUSTOMER BY XERXES OR ITS REPRESENTATIVES, WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE. THE REMEDIES SET FORTH IN THE ABOVE WARRANTY ARE THE ONLY REMEDIES AVAILABLE TO ANY PERSON FOR BREACH OF THE WARRANTY OR FOR BREACH OF ANY OTHER COVENANT, DUTY, OR OBLIGATION ON THE PART OF XERXES HEREUNDER. XERXES SHALL HAVE NO LIABILITY FOR INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OF ANY DESCRIPTION, WHETHER ANY SUCH CLAIM BE BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER TORT, OR OTHERWISE.

[1]TM Arco Chemical Co.

[2]Secondary containment as defined by Federal Law 40 C.F.R. [280.42] (1988), found in the Federal Register Vol. 53 No. 185 (9/23/88).

Effective 5/15/93

XERXES®
CORPORATION
CORPORATE OFFICE • 7901 XERXES AVENUE SOUTH, MINNEAPOLIS, MN 55431-1253 • (612) 887-1890

Warranty

Standard Underground Petroleum Storage Tank

We warrant that our underground tanks, if installed underground with proper backfill and otherwise installed in accordance with our instructions:

I. Will meet our published specifications and will be free from material defects in materials and workmanship for a period of one (1) year following date of original delivery by us;

II. Will not fail for a period of thirty (30) years from date of original purchase due to external corrosion; and

III. Will not fail for a period of thirty (30) years from date of original purchase due to internal corrosion provided the tank is used solely with or without tank water bottoms for the following products:

A. Petroleum products including gasoline, jet fuel, av-gas, motor oil, kerosene, diesel fuel or used for fuel oil at temperatures not to exceed 150°F.

B. Alcohol-gasoline blend motor fuels.

1. Ethanol blends
   - Gasohol (90% gasoline and 10% ethyl alcohol)
2. Methanol blends
   - Oxinol-50* waiver (90.5% gasoline and 9.5% Oxinol-50* composed of a mixture of 4.75% methanol and 4.75% GTBA).
   - DuPont EPA waiver (gasoline with 5% methanol and a minimum of 2.5% cosolvent. The blend may contain a maximum concentration of up to 3.7 weight percent oxygen in the final fuel).

C. Potable water at ambient temperatures.

IV. Will not leak for a period of thirty (30) years from date of original purchase due to structural failure, which shall be defined as breaking or collapse, provided the installation is in the United States and is performed and validated by a contractor trained by Owens-Corning, and is used as stated above. If the tank is exhumed and moved, it must be inspected, repaired (as necessary), and recertified by Owens-Corning in order to continue the structural warranty for the balance of 30-years.

Our liability under this warranty shall be limited to, at our option, (i) repair of the defective tank, (ii) delivery of a replacement tank to the point of original delivery, or (iii) refund of the original purchase price, and we shall not be liable for any labor, other installation costs, indirect or consequential damages or other damages in connection with such tanks. THE FOREGOING CONSTITUTES OUR EXCLUSIVE OBLIGATION AND WE MAKE NO EXPRESS OR IMPLIED WARRANTIES, OR ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WHATSOEVER, EXCEPT AS STATED ABOVE.

OWENS-CORNING FIBERGLAS CORPORATION
Non-Corrosive Products Division
Fiberglas Tower, Toledo, Ohio 43659

*TM Arco Chemical Co

Pub No. 15-PE-8367-E

Litho In U.S.A., Jan., 1986

...WARRANTY...

PLASTEEL Composite® Underground Petroleum/Motor Fuel Storage Tank

Single Wall and Double Wall

OWNER NAME: _____

OWNER ADDRESS: _____

INSTALLATION ADDRESS: _____

U.L. NUMBER: _____

TYPE: _____

CAPACITY: _____

SHIPMENT DATE: _____

TANX CORPORATION

is pleased to extend, on the U.L. numbered tank and installation above when installed per our instructions and to comply with N.F.P.A. Pamphlet 30 for underground steel tanks, the following warranty:

warrants the subject **PLASTEEL Composite® Underground Tank:**

1. *to be free from defects in workmanship and materials for a period of five years from the date of shipment.*
2. *will not fail due to internal or external corrosion for a period of thirty (30) years from the date of shipment when used to store all motor fuels including but not limited to unleaded gasoline, leaded gasoline, gasohol in any alcohol blend percentages, 100% methanol, 100% ethanol, diesel fuel, jet fuel, kerosene and fuel oil. Consult manufacturer concerning other warranted liquids*

This warranty is specifically limited, at our option, to the following:

1. *Repair of the tank at our factory, freight charges not included.*
2. *Replacement of tank delivered to point of original delivery.*
3. *Refund of the original purchase price.*

We are not liable for any labor, other installation or removal costs, indirect or consequential damages or any other damages in connection with these tanks.

Except as stated above, we make no warranty of merchantability, no warranty that our underground **PLASTEEL Composite®** tanks are fit for any particular p[illegible] or use and no other warranty, expressed or implied.